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# The Discriminative Value of the Items of the Loyola Nimh Attitude Scale

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THE DISCRIMINATIVE VALUE OF THE ITEMS OF THE LOYOLA  
N I M H ATTITUDE SCALE

by

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A Thesis Submitted to the Faculty of the Graduate School  
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## LIFE

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## CHAPTER I

### INTRODUCTION

There was at least an apparent conflict between religion and psychiatry from the beginning of psychiatry. The materialistic approach of psychiatry was attacked by religion or the ministers. On the other hand some aspects of religion were attacked by some psychiatrists. In modern times they are coming to a greater understanding and cooperation with each other. Is there a real conflict between religion and psychiatry? If there is any, it should be reflected in the attitude of the psychiatrists toward religion or of the clergy toward psychiatry. Our present study is concerned with the attitude of the clergy toward psychiatry.

In order to investigate the attitude of the Catholic clergy toward psychiatry a study was made by Webb and Kobler.<sup>1</sup> They were interested in more than a tabulation of the degree of favorableness and unfavorableness of the clergy; an effort was made to investigate the components of this complex attitude. For this purpose, both direct and indirect methods of measuring attitudes were used. For an intensive and extensive estimation of attitudes the following instruments were designed:

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<sup>1</sup>Webb, N. J., Unpublished Ph.D. Dissertation, Loyola University, 1959.

- 1) Interview
- 2) Loyola Balloon Drawing Test
- 3) Loyola Sentence Completion Test
- 4) Religion Apperception Test

The data obtained by using these instruments were then utilized in the development of an attitude scale called "The Loyola N.I.M.H. Attitude Scale."

The final form of the attitude scale consists of thirty-five statements about the relationship between religion and psychiatry. The final scale combined the Thurstone and Likert methods of scale construction.

This attitude test was given to over 1200 priests and seminarians of different seminaries, both secular and religious, throughout the United States. The priests were those finishing their theology studies. But for our purpose we decided to consider only the 980 unordained seminarians.

In addition to the items of the scale, space was provided for free comments by the subjects, that is, they were asked to write in essay form their reaction to the test and to psychiatry. Many subjects showed in addition to their attitude toward psychiatry, their attitude toward the measuring instrument. There were many criticisms about the items of the scale. Many subjects felt that some items were so vague that they could not answer them; some items were considered meaningless; some were judged good, others not so good. Thus, in their opinion, it seems that some of the items of the test would be more useful for the purpose of indicating the attitude than others, that some would be more discriminating and others less discriminating. The present study is an effort to determine which of the thirty-five items are the most discriminating and which the least discriminating, by means of a



standardized technique.

The primary purpose of this study was to check the discriminating value of the items of the Loyola NIMH attitude scale. Further an attempt was made to ascertain whether or not the experimenter, simply by careful consideration of the meaning of each of the items, could predict their actual discriminating power.

## CHAPTER II

### REVIEW OF LITERATURE

The measurement of attitudes is probably the most characteristic and the most significant technical achievement of social psychology. There have been several definitions of attitude. As McNemar (19) points out, the common element of most definitions of social attitude is that such an attitude is a readiness or tendency to act or react in a certain manner. The existence of this readiness or tendency is inferred either from non-verbal overt behavior or from verbal or symbolic behavior of the individual.

Gordon Allport<sup>1</sup> describes some of the properties of attitude which are consistent with many other authors. He maintains that attitude is a form of readiness for response that is individualized, distinctive of its possessor, and guides the course of behavior. He continues:

the term attitude, furthermore, usually signifies the acceptance or rejection of the object or concept of value to which it is related. Ordinarily attitudes are favorable or unfavorable, well disposed or ill-disposed; they lead one to approach or withdraw, to affirm or negate.<sup>1</sup>

Krech and Crutchfield (17) describe attitudes and beliefs as a determinant from which we can predict the behavior of man. "A complete picture of man's

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<sup>1</sup>Allport, Gordon, Personality - A Psychological Interpretation, Henry Holt and Company, New York, 1937, p. 280.

beliefs about and attitudes toward various aspects of his social world will yield highly reliable predictions about his behavior in various social situations."<sup>2</sup> They maintain that attitudes lie behind many of the significant and dramatic instances of man's social behavior. They define attitude as "an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual's world."<sup>3</sup>

Bird (3) says that an attitude denotes an adjustment of an individual toward a selected aspect of his environment or of his own conduct.

When Kech and Crutchfield (17) say that attitudes can be designed as either "pro" or "anti," they agree with the definition of attitude given by Bogardus (5) that it is a "tendency to act toward or against environmental factors which become thereby a positive or negative value."<sup>4</sup>

Some writers use the terms attitude and opinion as having very similar if not the same meaning. Both are interpreted as having to do with a predisposition to action. Thus conceived, one can have an unexpected opinion; when it is expressed, it may be taken as one's opinion or as evidence regarding one's attitude.

For many theorists such as Smith, Bruner and White (24), Peak (21), Rosenberg (23), and Green (13) the meaning of attitude involves both cognitive

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<sup>2</sup>Krech, D. and Crutchfield, R. S., Theory and Problems of Social Psychology, New York, McGraw-Hill, 1948, p. 150.

<sup>3</sup>Ibid., p. 152.

<sup>4</sup>Bogardus, E., Immigration and Race Attitudes, Boston, Heath, 1928, p. 101.

and affective components. These components interact so that cognition about attitudinal objects is not meaningful without considering the affective components. Thurstone (29) defines attitude as "the degree of positive or negative affect associated with some psychological object."<sup>5</sup>

In all these definitions there are certain common elements which can be summarized into two:

- 1) the attitude is a predisposition to act in a certain way toward something
- 2) there is always implied some inference from previous experience .

Since most of the theorists agree that attitude is a tendency, affect, pro or con, a feeling, positive or negative, associated with some psychological object, measuring the attitude is trying to assess the degree of positive or negative feeling associated with that particular object at present which is formed from the previous experience.

Several techniques have been used for assessing attitudes. One of these, perhaps the most simple way, is to ask the individuals questions concerning the issue, to see whether they are favorable or unfavorable. Another way is to observe the behavior of the individuals. The way one behaves or acts toward some particular object is a good indication of his attitude toward that object. But these techniques are not very practical when large groups are involved. Very often indirect ways or projective techniques such as sentence completion technique (Gekoski and Isard 1955, Rotter and Willerman 1954, Burwen, Campbell,

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<sup>5</sup>Thurstone, L. L., "Comment," Amer. J. Sociol., 1946, 52, p. 41.

and Kidd 1957)), semantic differential tests, etc., are used.

Of all the methods of measurement of attitudes, by far the most carefully and scientifically designed and tested is the attitude scale. It provides a quick and convenient measure of attitude of large numbers of individuals. The method of scaling requires that the individual person react with expressions of approval or disapproval, agreement or disagreement to a set of carefully standardized items or propositions. The responses of the individual enable the tester to have a more sensitive measure than just the broad categories of favorableness or unfavorableness. The objective of the scale is to assign to an individual a numerical position along a scale that extends from one extreme of approval or acceptance to the other extreme of disapproval or rejection.

In the construction of a typical attitude scale the objective is to select a set of items or propositions in such a fashion that the acceptance and rejection of each one will imply a different degree of favorable or unfavorable attitude.

Krech and Cretchfield (17) give the following criteria for the selection of scale items:

- 1) Diagnostic function - The item must serve some discriminative function, so that people of different attitudes will respond to the item in systematically different ways.

- 2) Sharpness of discrimination - It must differentiate sharply among people who fall at different points along the dimension being measured, i.e., the response to an item should be highly correlated with the underlying attitude.

- 3) Discrimination along the entire scale - All shades of attitude from one

extreme to the other should be discriminable.

4) Minimal number of items for reliability, yet the items should be sufficiently numerous so that random and accidental imperfections in the items and in the testing are cancelled out.

There were many crude and undeveloped attitude measuring techniques. Thurstone and his co-workers (28) have developed certain widely used methods of attitude scale construction. Thurstone (25, 26) published two important articles in which he developed his "law of comparative judgments." The statement of this law in a series of articles provided a rational method for ranking stimuli along a psychological continuum. The law of comparative judgments was expanded to include psychological scaling methods. Thurstone and his co-workers constructed scales for measuring the attitude toward the Church, treatment of criminals, capital punishment, God, communism, patriotism, the Negro, birth control, the Constitution, the Bible, etc.

There are several steps in the construction of the Thurstone scale:

1) The amassing of a very large number of simple statements about the object or issue in question. These should be phrased in simple, unambiguous terms and should refer the issue or object directly.

2) Judging of each of these items by a group of experts as to its proper diagnostic position on an attitude continuum from one extreme to the other and rejection of the items for which there is insufficient agreement among the judges as to its proper scale position. The more directly the item refers to the object or issue in question the higher the agreement among the judges. The task of the judge is to place each item in one of the eleven piles which appear to be equally spaced from one extreme of the scale to the other.

3) The assignment of a scale score to each remaining item, computed as the median scale position for that item given by the group of judges.

4) A final selection among the remaining items so that they will spread more or less evenly along the scale from one extreme to the other.

In taking the test, the individual is instructed to check each item with which he agrees. His attitude score is computed as the median of the scale values of the items he checks.

In 1932 Likert (18) presented a different approach to the construction of attitude scales. The procedure can be summarized as follows:

1) The collection of a large number of statements or propositions either referring directly or considered by the experimenter as likely to relate to the object in question.

2) The applying of these statements to a group of subjects who indicate for each statement their reaction of strongly approve, approve, undecided, disapprove, or strongly disapprove.

3) The summation for each individual of responses to all the items, by scoring the above categories 4, 3, 2, 1 and 0 respectively.

4) The examination of the amount of correlation between each item and the total score.

5) The elimination of items that fail to correlate to a substantial degree with the total score, i.e., that do not hang together with or measure the same thing as the other items in the test.

Thurstone's method of scaling is very laborious. The collection of affective statements, having them sorted into equally spaced categories, tabulating the results of the sortings, and finally determining the scale

values are long and laborious. It requires an original group of judges. Likert, to shorten it, as he says, did away with the judging group. But he requires a preliminary group of subjects on whom the items are to be statistically intercorrelated. So, as to the construction and use, it is doubtful whether either of these two scales is better than the other.

The simple method of assigning arbitrary values 0, 1, 2, 3, 4 to the degrees of agreement and disagreement to each item is an advantage of the Likert system. This seems to give more information when compared with mere acceptance or rejection of Thurstone's items.

The items in a Likert scale can be made to serve a twofold function viz., (a) to provide data on the individual's attitude about the specific issue covered by the single item. (b) to provide a total score on the attitude dimension being studied. Thurstone's items cannot readily serve this double function.

Because of the less reliability in Thurstone's method (Likert method holding a slight edge) Likert concluded his method to be superior. This conclusion has been accepted by Murphy, Murphy and Newcomb (20). Concerning the more important question of validity there is little definitive evidence. Both methods have been widely used in experimental investigations of all sorts and both methods have demonstrated their usefulness.

There seems to be a real difference as to the meaningfulness of the scores. The scores yielded by Likert method have little absolute significance. They seem to be mostly relative. The score can be interpreted only in terms of the point where the individual falls in relation to the total distribution of such scores. The extent of favorableness or unfavorableness is purely relative to



the population that has been measured. Thurstone's scale score can be considered as somewhat more absolute and of more rational significance. It depends on the objectivity of the original judges in the sorting of the items. The scale value is supposed to be a function of the absolute meaning of that item as viewed by the judges in relation to the entire dimension of the attitude between the two extremes. The more the agreement among the judges, the higher the degree of absoluteness. However, there must be some relativity even in the judges' interpretation even of the meaning of the item, if not of its scale value.

It is not easy to decide which of the two techniques namely, the Thurstone method or the Likert method, is to be preferred. In the case of Thurstone, judges place each item on a psychological continuum from high to low; in that of Likert, the subjects typical of the group to be tested simply state the strength of their agreement or disagreement, and their consistency is the real criterion. Each system has its own advantages and disadvantages. The Likert method has a less complicated and apparently less laborious procedure. It has a slight edge of reliability. The information which it gives is more than mere agreement or disagreement. Because of these reasons the investigator was more inclined to use the Likert method.

## CHAPTER III

### SUBJECTS AND PROCEDURE

In the beginning the items of the test were studied by the present writer himself. Judgments were also made by him, as were predictions of the discriminating value of the various items. Thus it was predicted that items 6, 7, 23, 27 and 33 would be the most discriminating regardless of order and that items 9, 12, 26, 28 and 32 would be least discriminating regardless of order. Thus there was no attempt made to specify which of the five top discriminating items was the most and which the least. The same holds for the five bottom items.

The materials that had been collected in a study of the attitude of the Catholic seminarians were made use of for the present study. The same materials were analyzed and studied in two different ways. Of the 980 unordained seminarians who took the Loyola NIMH attitude test, the protocols of those 100 who scored the highest and those 100 who scored the lowest were selected. That is, the answers of the 100 persons who were, on the basis of the test, found to be most favorable and of the 100 persons who were found to be least favorable toward psychiatry, were picked out for further investigation and study. We may call the highest 100, or the ones most favorable toward psychiatry, Group A; and the lowest 100, or those least favorable toward psychiatry, Group B. The total score and mean score of each of the items for Group A and Group B were found (Cf. Table I). The method of scoring was as

follows:

The equal interval scale ranged from 0 through 4. Thus each item received a score value of 4 if the subject strongly agreed, 3 if he agreed, 2 if he reported undecision, 1 if he disagreed and 0 if he strongly disagreed, in items expressing a favorable attitude toward psychiatry. On the other hand, if the item, when one agrees with it, showed an unfavorable attitude toward psychiatry, the scores were reversed, i.e., the item gets a score of 0 when one strongly agrees, 1 when he agrees, 2 when he reports indecision, 3 when he disagrees, and 4 when he strongly disagrees.

On the basis of the amount of the difference between the mean scores of groups A and B, items were ranked. The item that has the greatest difference between Group A and Group B ranked first and that which has the least difference was ranked last (Cf. Table II). Items that are at the top in rank order are the most discriminating items, and those at the bottom are the least discriminating. It is evident that items which show great differences between the most favorable segment of any group and the least favorable segment of that group are more discriminating than those which show small differences. Of course this is all predicted on this one large sample of 980 seminarians. As is evident from the Likert technique for validating attitude scales, the experimenter always assumes that his total sample is representative of the group to be tested. He merely gives a picture of the internal consistency of the test.

## CHAPTER IV

### DISCUSSION OF THE RESULTS

From the results of the study it was found that thirty out of the thirty-five items of the test had a difference of more than one unit score between the mean scores of groups A and B. The highest difference was 1.85 and the lowest 0.66.

Score value 2 is the cutting point between favorableness and unfavorableness, i.e., you report indecision at 2 of the scale. As you move to one side along that scale, your attitude becomes favorable and as you move to the other side your attitude becomes unfavorable. When you have moved one unit score of the equally distributed interval scale, i.e., if a score value of one is added (3 in statements expressing favorableness and 1 in statements expressing unfavorableness) your attitude becomes favorable, viz., you "agree" in statements of favorableness and "disagree" in statements of unfavorableness. Similarly, when you move one score in the opposite direction your attitude is unfavorable, viz., you "disagree" in statements of favorableness and "agree" in statements of unfavorableness. Therefore, a difference of one or more scores according to the Likert technique between the average scores of the most favorable segment and the least favorable segment of the group is very significant. It is a sign of high discriminative value. Even those five items with a difference of less than one score are not bad as far as the discriminative value is concerned, because the difference between the mean scores of these items in

the two groups comes very close to one.

It is very significant that the mean score for an item in Group A is always greater than the mean score for that item in Group B. So the difference between the mean scores for each item in the two groups is always a positive score. This indicates a consistent agreement among the subjects.

It was also found that items 6, 7, 35, 25 and 33 were the most discriminating with #6 leading the list, and that items 11, 2 32, 30 and 18 were the least discriminating with item #11 being the very least (Cf. Table II).

The experimenter predicted that items 6, 7, 23, 27 and 33, without specifying the order, would be the most discriminating. Of these five items 6, 7 and 33 were also found to be among the five most discriminating items from the results of the experiment. Similarly items 23 and 27 ranked 6th and 7th places respectively as a result of the experiment (Cf. Table III). Predictions were correct for only three out of the five top items. He did not judge items 35 and 25 to be among the top five and yet they ranked third and fourth places respectively as a result of the study.

He remembers having deliberated about including item #35 among the top five, but was not of the opinion that item #25 would be one of the five most discriminating items. No doubt, it would show an unfavorable attitude in the subject if he agrees with the statement in item #25 which reads: "More consistent agreement among psychiatrists is necessary before their teaching can be brought into the seminary." However, implicitly he seems to agree that psychiatry is something good. He seems to be in favor of bringing it in the seminary if there is more consistent agreement among psychiatrists, which may be brought about as a result of more study. It would seem that this item is

somewhat ambiguous or at least not univocal. It is capable of showing favorable and unfavorable attitudes at the same time under different respects, thus making it hard for the reader to come to any conclusion about its discriminating value, merely from the words of the item itself.

Item #6 which reads: "Parishioners should be referred to a psychiatrist as readily as to another medical specialist" was predicted to be one of the five most discriminating items for the following reasons: (1) This statement, when the person agrees, would indicate a complete acceptance of psychiatry without reservation. It would indicate that the priest would follow the same procedure in recommending a psychiatrist as he would any other physician. In either case he would use the discretion of recommending only a man in whom he had confidence, but he would be prudent even in recommending any physician. (2) He who agrees with the statement in this item does not merely tolerate the referral of the patient to the psychiatrist, he is positive in his stand. He is of the opinion that the patient should be referred to the psychiatrist which shows a very strong favorable attitude toward psychiatry. (3) The agreement here is also made without qualifying the word psychiatrist, which indicates the acceptance of the science without respect to the practitioner. (4) Furthermore, disagreement with this statement would not necessarily reflect an adverse opinion, although it probably would, because the priest might merely be more cautious in recommending some individual psychiatrist.

Item #7 which reads: "There is no conflict between psychiatry and religion" was also predicted to be one of the most discriminating items. (1) Unqualified agreement of the priest or seminarian with this statement would certainly indicate an acceptance of the science of psychiatry. Obviously if

the seminarian's attitude toward religion is, as it is supposed to be, quite favorable, when he admits that there is no conflict between religion and psychiatry, he seems also to be admitting that he is favorable to psychiatry. However, disagreement could be interpreted in many different ways. The priest might very realistically acknowledge the fact that many priests do oppose psychiatry and many psychiatrists oppose religions, or at least certain aspects of various religions. So this statement could indicate a favorable attitude where agreement is found as well as when there is disagreement. (2) Certainly a priest or seminarian with some knowledge of the various theories of personality in psychiatry could find reasons to oppose such theories and this feeling of opposition would be expressed in answering this item. But acceptance of unfavorableness to psychiatry as such, would not be excluded by this apparent opposition. (3) Once again it clearly states an attitude toward the science of psychiatry without reference to the practitioner.

Item #33 reads: "The priest who utilizes psychiatric knowledge in his work is a more effective priest." Agreement with this statement certainly shows a very favorable attitude toward psychiatry. If one believes that a priest with psychiatric knowledge is more effective than one without it, he must believe that this knowledge is an aid to his ministry. On the other hand, if one says that, all things equal, a priest with psychiatric knowledge is not more effective than one without it, it shows that psychiatry does not do much to help him in his priestly duties. However, disagreement would not necessarily indicate opposition. No priest is entirely effective in every aspect of his priesthood. One could be an effective priest without psychiatric knowledge depending on the work that he is doing. So, favorability is

indicated by agreement although disagreement would not necessarily indicate unfavorability. This statement (item #33) also indicates that the person believes that psychiatric knowledge should be imparted in the seminary curriculum.

Item #23 reads: "In most cases a parishioner who thinks he needs psychiatric help would do better to improve his religious life." Strictly as the item is worded, agreement would certainly indicate opposition to the science of psychiatry. However, one can conceive of a priest and even a psychiatrist believing that a stronger insistence on spiritual values would be indicated in many cases of mental or nervous symptoms without prejudice to the science of psychiatry. But as the statement stands, it is unquestionably indicative of opposition.

Item #27 reads: "More emphasis on teaching the findings of psychiatry is needed in seminary curriculum." Agreement with this statement calls for more general psychiatric training of the priest, which assumes that this kind of knowledge is important to the priestly ministry. This indicates more than a passive acceptance of the science of psychiatry by the subject -- priest or seminarian -- but a desire for active use of the principles of psychiatry. He seems to admit that it is not only a good and useful thing but a necessary thing. Because of this strong favorable attitude shown in this statement toward psychiatry in general, this was considered a very discriminating item, to be included among the five topmost items.

The investigator predicted items 9, 12, 26, 28 and 32 would be the least discriminating items without specifying the order. These items turned out to be 12th, 24th, 21st, 27th and 3rd least discriminating items respectively



according to the findings of the Likert analysis (Cf. Table III). It would seem that his prediction was not very good for the least discriminating items according to the results of the study. But it is important to note that all the above-mentioned five items are actually less discriminating than any of the five most discriminating items, whether one considers the five items which the Likert technique selected, or the five which were predicted by the investigator. There is no overlapping.

Item #9 reads: "Current psychiatric practice allows people to express sexual impulses without moral inhibition." Apparently agreement with this statement shows unfavorable attitude toward psychiatry. (1) A priest's natural distrust of generalities would naturally make him shy of this statement. It would be like saying all psychiatrists encourage immorality in their clients. Few priests are so naive as to accept this fact. Most would recognize it as a grave exaggeration to begin with and could easily disagree with the statement without in any way showing disfavor to psychiatry. Or he may be even favorable to psychiatry but is only opposed to the way it is practiced by some individuals. In any case, his attitude is not made clear. (2) It also depends on what does he understand from the words "express sexual impulses." If he understands it to mean "indulge" it is evident that he is unfavorable to psychiatry. But if he is thinking of "catharsis" he may mean only "talking out what is in the mind." In this sense he may be indifferent or even for it. Therefore, from his favorable or unfavorable answer to this item it is not very clear what his attitude is toward the whole of psychiatry.

Item #12 reads thus: "A good Catholic should never undergo intensive psychiatric analysis." Apparently this statement is unfavorable to psychiatry.

One who agrees with this item may seem to be against psychiatry. This statement hinges on the words intensive analysis. It is possible that one who agrees with this statement is against only "intensive" psychiatric analysis while he is favorable to psychiatry. It has to do with the method rather than the science of psychiatry itself. This statement presupposes a conflict between being a good Catholic and acceptance of intensive psychiatric analysis, which is quite vague and not identifiable with psychiatry itself. Therefore this statement was predicted to be one of the least discriminating items.

Item #26 reads: "Too much psychiatry is a bad thing." A person agreeing with this statement is apparently unfavorable to psychiatry. But in reality he may not be against psychiatry because, he says only "too much" psychiatry is a bad thing as is the case with anything else. Too many strawberries are a bad thing, too - too much religion (fanaticism), too much exercise, etc., etc., prove nothing at all. So this item did not seem to be very discriminating because it does not bring out what is the attitude of the subject toward psychiatry, when it is not too much. Even a psychiatrist could agree with this statement.

Item #28 is as follows: "The present seminary curriculum is too crowded to include more teaching of psychiatric knowledge." Any reader of clerical journals is going to react violently to this one. These journals are loaded with discussions of what should be added and subtracted from the seminary curriculum. Priests are in two camps about things more closely allied with the sciences of Theology than psychiatry and whether they should be included in the seminary curriculum (even things that the Popes in encyclicals have recommended

for study in the seminary). Therefore, again this statement could meet agreement or disagreement without indicating anything of favorability or unfavorability to psychiatry. Here the fight is the crowded curriculum and not the subject of psychiatry in the statement. Favorableness or unfavorableness to the statement does not show the attitude of the subject toward psychiatry.

Item #32 reads thus: "The psychiatrist's use of electric shock therapy should be condemned." The statement seems to be able to discriminate very little, because it does not seem to bring out the attitude of the person toward psychiatry. It is obvious that one who agrees with this statement is not in favor of electric shock treatment. But electric shock treatment and psychiatry are not synonyms. Psychiatry is not all electric shock treatment. Electric shock treatment is only one of the several techniques used by psychiatrists. This statement does not say anything about the rest of the techniques used by psychiatrists. So favorableness or unfavorableness to this statement does not mean much as indicating the attitude of the person toward psychiatry. Probably there are many psychiatrists who would agree with this statement. It would also seem to be an unfair question in the case of a priest or seminarian who is unfamiliar with the treatment (its pros and cons) and could very easily be prejudicial in indicating the priests' attitude. So this item was considered to be one of the least discriminating items of the attitude measurement scale.

As seen above, the investigator's prediction was very good for the five most discriminating items. Three out of the five predicted items were found to be among the five topmost discriminating items according to the results of the Likert technique. All the predicted items were included among the seven

topmost items as found from the results of the study. But he was not so good in predicting the five least discriminating items since only one of the predicted least discriminating items was found among the five least discriminating items in the result of the study. The following are possible reasons for the discrepancy between the Likert analysis and the prediction of the investigator:

1. In constructing the Loyola NIMH attitude test, at first the instrument consisted of over 200 potential attitude statements, later reduced to 135. By using the criterion of internal consistency and multiple category methods, many items were eliminated and the best 35 statements were chosen for the items of the scale. These were acceptably scattered throughout the psychological continuum of favorableness. It would be easy to select five best or five least discriminating items out of 200 or 135 items. When the least useful ones are eliminated from the bottom of the original list of statements and the number of items is reduced to as small a number as 35, the topmost items of the scale of 200 or 135 items will remain topmost in the final scale also so they can be picked out easily. But it is very difficult to select the least discriminating items from the final attitude scale. The reason is that the difference of usefulness or discriminating value among the bottommost items in the final scale, which were the middle ones in the distribution of the original scale of 135 items, would be very little or none. Chances are that, because of this insignificant difference, one may very easily go wrong when trying to assign a rank order of discriminating value, from mere consideration of the meaning of each of the items.

2. The present investigator is a priest greatly interested in psychiatry,

whereas those tested were seminarians, many not even remotely interested. It is very likely that there will be a difference in conclusions arrived at by different individuals with different tastes and interests.

3. It would seem that seminarians would be more likely to reflect the attitudes of their professors and other individuals who influence them in their training. So it is quite natural that seminarians of different seminaries have a different outlook on psychiatry depending on the attitude of their teachers and superiors. It is very probable that the difference in the training of the seminarians with a different background, compared with that of the present investigator, might have influenced them in judging about psychiatry. The fact that a certain tendency to be more inclined to one or the other side of favorableness is found among students of different seminaries is a confirmation to this argument.

4. In order to make a good judgment about anything, one should have a correct idea of its nature. This holds good about psychiatry also. There may not be any one who has not heard about psychiatry. But there are only a few who have the right concept of psychiatry. As the concept of the individuals about psychiatry differs, there are chances of different opinions and different attitudes. This principle seems to be applicable in the case of the subjects who took this attitude test.

5. Even if all the subjects had the same concept about psychiatry, which is very improbable, there is at least a possibility that a few of the individuals who took the test might not have taken it as seriously as we expect. Some, at least, may not have gone deep enough into the meaning of each of the items before they rated them. If there are a good number of such

answers this will affect the result of the test and consequently can vary the conclusion.

6. It is conceivable that an individual priest would in his own mind be unfavorably inclined towards psychiatry but in his practice would recommend it to individuals with personality or mental problems. In this case, his response would indicate an unfavorable attitude, but his action would belie his attitude.

7. The mere reading by a person to be tested of any of these items would seem to be an emotionally loaded experience. This is all the more true if one is not sure what use is to be made of the test. The promise by the tester that the results would be kept anonymous may have lessened the emotional involvement, but probably did not eliminate it. The present writer, however, just because he was not taking the test read the items deliberately and, it is hoped, unemotionally. He tried to judge objectively, what the reactions would indicate, merely from the meaning of the item, and used his knowledge of the way in which seminarians would react to them.

8. Furthermore, the difficulty in detecting the non-discriminating character of an item would indicate that there is an objective discriminating character, i.e., if the item is not non-discriminating, you can not detect it as non-discriminating.

## CHAPTER V

### SUMMARY AND CONCLUSION

There was a twofold purpose for this study. The primary purpose was to check the discriminating value of the items of the Loyola NIMH attitude scale using the Likert technique. Secondly an attempt was made to ascertain whether or not the experimenter, simply by careful consideration of the meaning of each of the items, could predict their actual discriminating power.

After studying the items the experimenter predicted items 6, 7, 23, 27 and 33 as the most discriminating and 9, 12, 26, 28 and 32 as least discriminating, both regardless of order.

The materials collected for a previous study to measure the attitude of the Catholic clergy toward psychiatry were used. Of the 980 unordained seminarians who took the Loyola NIMH attitude test, the protocols of those 100 who scored the highest (most favorable to psychiatry) and 100 who scored the lowest (least favorable to psychiatry) were picked out. The mean scores for each item in both groups were compared. The item that has the greatest difference between the mean scores of the two groups is the most discriminating and the item with least difference is the least discriminating.

From the results of this study it was found that only five out of the thirty-five items had a difference of less than one score between the mean scores of the most favorable 100 persons and the mean scores of the least favorable 100 persons. Even these five items have a difference close to 1.00.

A difference of one or more scores according to the Likert technique between the average scores of most favorable segment of the group and the least favorable segment of the group for 30 out of 35 items is a sign of discriminative value of the items of the scale. Thus it is concluded that the items of the Loyola NIMH attitude scale are very good. Even though some of the items may seem to be a little vague or difficult to answer for some people, from the results of the study we find that they were good for measuring the attitude of the subjects toward psychiatry.

Another important thing to be noted is that there was no negative score. It was found that the difference between the mean scores of the items for the most favorable segment and the least favorable segment was always a positive number which shows a consistent agreement among the subjects. This also is a proof for the discriminative value of the items of the attitude scale.

As to the secondary purpose of the study, whether or not the investigator simply by careful consideration of the meaning of each of the items, could predict their discriminating power, his predictions were right for three out of the five most discriminating items according to the results of the Likert technique, and only for one out of the five least discriminating items. The prediction concerning the most discriminating items shows an objective validity that is easily discernable by an individual reviewing the scale. And on the contrary, the difficulty to predict the least discriminating items confirms the discriminating character of the remaining (exclusive of the topmost ones) items. Because they are discriminating, it is extremely difficult to detect them as non-discriminating.

From this it follows that there is an objective validity to the items of



this attitude measuring scale. That is, the Loyola NIMH attitude scale can be used effectively in measuring the attitude of any segment of the population toward psychiatry.

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## APPENDIX

### Items of the Loyola NIMH Attitude Scale

1. A psychiatrist can be effective regardless of his religion.
2. There is a close relationship between religious and psychiatric ideals.
3. Psychiatry ignores the supernatural side of man.
4. A psychiatrist makes one feel uncomfortable because he is always analyzing his fellow men.
5. Psychiatry denies free will in man's conduct by its emphasis on unconscious motivation.
6. Parishioners should be referred to a psychiatrist as readily as to another medical specialist.
7. There is no conflict between psychiatry and religion.
8. In our complex society it is essential for the priest to have a thorough knowledge of psychiatry.
9. Current psychiatric practice allows people to express sexual impulses without moral inhibition.
10. Common sense is a fitting substitute for psychiatric knowledge.
11. There is nothing in present day psychiatry that is contrary to Catholic teaching.
12. A good Catholic should never undergo intensive psychiatric analysis.
13. Psychiatry is as important as philosophy in seminary training.
14. Religion and Psychiatry are compatible.
15. Psychiatrists are likely to misguide a Catholic when moral problems are involved.
16. Psychiatrists often attempt to take the place of the priest.
17. Psychiatry today is dominated by a materialistic philosophy.

18. Psychiatric analysis usually requires too much time for treatment to be recommended to a parishioner.
19. Psychiatrists place an exaggerated emphasis on sex.
20. Psychiatric knowledge is essential in adjusting to life in the seminary.
21. Psychiatry offers few facts and its teachings are mostly hypothetical and uncertain.
22. The findings of psychiatry should be taught to help the priest in his confessional work.
23. In most cases a parishioner who thinks he needs psychiatric help would do better to improve his religious life.
24. Psychiatry is feared only because it is misunderstood.
25. More consistent agreement among psychiatrists is necessary before their teaching can be brought into the seminary.
26. Too much psychiatry is a bad thing.
27. More emphasis on teaching the findings of psychiatry is needed in the seminary curriculum.
28. The present seminary curriculum is too crowded to include more teaching of psychiatric knowledge.
29. In dealing with mentally disturbed individuals psychiatry is essential.
30. Psychiatry because of its exclusive concern with abnormal individuals is of little use to the priest.
31. Psychiatry considers religion a mass delusion to be eliminated through analysis.
32. The psychiatrist's use of electric shock therapy should be condemned.
33. The priest who utilizes psychiatric knowledge in his work is a more effective priest.
34. Psychiatry is unacceptable because it deals too much with the unknown.
35. A priest should not hesitate to refer a parishioner to a psychiatrist.

TABLE I

Items of the Loyola NIMH Attitude Scale Showing the Mean Scores of the Topmost 100 and Bottommost 100 Protocols Out of 980, with the Difference between the Two Groups According to the Likert Technique and the Order of Items, Ranked According to the Magnitude of the Differences

<u>Item No.</u>	<u>Mean of Gp. A.</u>	<u>Mean Gp. B.</u>	<u>Diff.</u>	<u>Rank</u>
1	2.83	1.67	1.16	21
2	3.19	2.41	0.78	34
3	3.22	1.82	1.40	10
4	3.38	2.18	1.20	19
5	3.54	2.32	1.22	18
6	3.47	1.62	1.85	1
7	3.53	1.73	1.80	2
8	2.76	1.63	1.13	23
9	3.01	1.89	1.12	24
10	3.49	2.43	1.06	26.5
11	1.40	0.74	0.66	35
12	3.75	2.41	1.34	13
13	2.35	1.00	1.35	11
14	3.83	2.75	1.08	25
15	2.62	1.56	1.06	26.5
16	2.81	1.47	1.34	13
17	2.43	1.09	1.34	13
18	3.37	2.39	0.98	31
19	3.01	1.53	1.48	8
20	2.15	1.10	1.05	28
21	3.39	2.20	1.19	20
22	3.80	2.65	1.15	22
23	3.09	1.59	1.50	6.5
24	3.41	2.16	1.25	17
25	2.90	1.34	1.56	4
26	2.31	1.02	1.29	15
27	3.53	2.03	1.50	6.5
28	2.86	1.40	1.46	9
29	3.69	2.68	1.01	29.5
30	3.98	3.02	0.96	32
31	3.60	2.33	1.27	16
32	3.48	2.65	0.83	33
33	3.70	2.15	1.55	5
34	3.59	2.58	1.01	29.5
35	3.45	1.75	1.70	3

TABLE II

Rank Order of Discriminating Value of the Items of the Loyola  
NIMH Attitude Scale as Seen in Table I.

<u>Rank Order</u>	<u>Item No.</u>
1	6
2	7
3	35
4	25
5	33
6.5	23
6.5	27
8	19
9	28
10	3
11	13
13	12
13	16
13	17
15	26
16	31
17	24
18	5
19	4
20	21
21	1
22	22
23	8
24	9
25	14
26.5	10
26.5	15
28	20
29.5	29
29.5	34
31	18
32	30
33	32
34	2
35	11

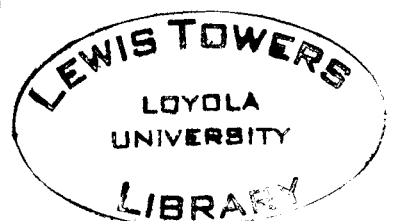


TABLE III

Five Most and Five Least Discriminating Items as Predicted,  
Regardless of Order, Versus Most and Least  
Discriminating Items as Found From  
the Results of the Study

	Experimenter's Predictions	Rank-Order of Items From the Study
	6	6
	7	7
top-most 5	23	35
	27	25
	33	33
	( )	(23)
	( )	(27)
	( )	(19)
	( )	(28)
	( )	( 3)
	( )	(13)
	( )	(12)
	( )	(16)
	( )	(17)
	( )	(26)
	( )	(31)
	( )	(24)
	( )	( 5)
	( )	( 4)
	( )	(21)
	( )	( 1)
	( )	(22)
	( )	( 8)
	( )	( 9)
	( )	(14)
	( )	(10)
	( )	(15)
	( )	(20)
	( )	(29)
	( )	(34)
	9	18
bottom-most 5	12	30
	26	32
	28	2
	32	11



### APPROVAL SHEET

The thesis submitted by Reverend Verus T. Kalarickal, C.M.I. has been read and approved by three members of the Department of Psychology.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form, and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

Nov. 7, 1962

Date

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Signature of Adviser